Mathematics 2300: Calculus 2, Spring 2025 Syllabus

Class Meetings. MTWThF at 1:25-2:15pm
Location. Clare 211
Instructor. Rebekah Jones
Office Hours. Mon 11:15am-1pm, Wed 3:30-4:45pm or by appointment
Office. Math 218
Course Teaching Assistant. Orlando Reyes
Course Learning Assistant. TBD

Course Information

Prerequisites:
MATH 1300 or MATH 1310 or APPM 1345 or APPM 1350 (minimum grade C-). Credit not granted for this course and APPM 1360.

Textbook and WebAssign Access:
We will use the textbook "Calculus: Early Transcendentals," 9th Edition, by James Stewart.

The e-book and WebAssign comes with a Cengage Unlimited subscription through CU's Book Access program, for which you are automatically billed through your tuition $269 (plus tax). This flat fee gains you access to the materials for ALL of your courses for Spring 2025. If you wish to opt out of the Book Access program, you can opt out by January 29, 2025, but you will lose access to your course materials for all your courses and must purchase them separately. See the CU Bookstore's frequently asked questions for more information about the Book Access program.

Required Equipment and Software:

- **Smart phone (or tablet) and scanner app:** So that you can submit written assignments online as a single PDF file, you should download a scanner app for your smart phone or internet-connected tablet, if your smart phone or tablet does not already have one. Many of these apps are available for free, such as CamScanner.
- **Calculators and other technology:** You do not need to purchase a graphing calculator. The free graphing website Desmos.com will be sufficient for most of your graphing and computational tasks. For more intensive calculations, you can use Mathematica, which you can download for free through the University's subscription at `https://www.wolfram.com/siteinfo/` or access the cloud version at `https://www.wolframcloud.com`. **Absolutely no calculators will be allowed on exams. Nor will they be needed on exams.**
- *Note:* If class must temporarily or permanently switch to a remote modality, then all students will be required to have a computer equipped with a webcam, microphone, and Zoom. If (and only if) the university must update guidelines and prohibit in-person exams, then all students will be required to download and use the free Google Chrome extension Proctorio for exams.

Canvas:
See our course's Canvas page (https://canvas.colorado.edu) for up-to-date course information, homework assignments, a link to WebAssign, the course schedule, lists of instructors and Graduate Teaching Assistants, a copy of this syllabus, and links to additional resources.

Course Structure

Research shows that people learn mathematics best when they are actively participating. In other words, you learn by doing, not by watching. Therefore, MATH 2300 does not meet in large sections, but instead meets in small sections, which allows individual and group work in which you will be actively engaged with solving problems, making discoveries and understanding connections. This course and the book we are using are designed for a classroom which does not follow a traditional lecture format. Do not be surprised if your instructor often spends only half a class period lecturing or solving problems: the rest of the time, you should expect to be working at your desk or online, either individually or in groups, presenting your work.

In this vein, you will be expected to read a section in the book before it is discussed in class. Lectures are intended to highlight aspects of the text, not to replace it. In this course you will learn a number of useful formulas, though their mastery is not the primary purpose of calculus any more than correct spelling is the primary purpose of literature. Our goal is to have you learn how to understand calculus conceptually so you can build your own approaches to solving practical problems.

We will use a variety of recitation projects and in-class activities where you will collaborate in small groups to discover, extend, and apply calculus concepts.

Course Content:
This course is a continuation of MATH 1300. Topics include techniques of integration, improper integrals, applications of integration, sequences and series, power series, Taylor series, differential equations, parametric equations and polar coordinates.

Mathematics Academic Resource Center:
The Mathematics Academic Resource Center (MARC) is a free service provided by the Department of Mathematics that offers students additional support for their CU Mathematics courses. They offer in-person assistance Monday through Friday. You can visit their website https://math.colorado.edu/marc/ for updated hours, remote options and other information.

The MARC is staffed by graduate students (G), undergraduates (U), and Learning Assistants (respective course number). Tutors are trained to help assist with specific questions. They are not able to work through homework assignments. The MARC is extremely busy before assignments are due, i.e., on Wednesdays and Thursdays, so make a habit of visiting the MARC earlier in the week, well before assignments are due. They have free coffee and tea (freshly brewed by MARC staff!). Remember, you are not learning on an island; you have support. Swing by and start a conversation with our wonderful tutors.

Assignments and Assessments

The only effective way to learn Calculus is to do lots and lots of problems. Besides working on problems in class every day, you will have assignments and assessments in this course to enhance your skills and understanding.

Online homework:
WebAssign is an online system for doing homework. When you log on, you are given problems that you solve on paper and then enter the answers. These problems are generally straightforward or computational, and you can repeat them multiple times until you get the correct answer. The philosophy behind this is that instantaneous feedback is more effective than waiting days for a grade, and that doing a problem over if it's wrong is better than simply seeing the right answer. Because problems are graded by a computer, there are occasional technical issues, but we believe the trade-off is worthwhile. WebAssign can be accessed through the following link (also on Canvas): https://www.webassign.net/colorado/login.html.

If you added the course before 10:00am on the Friday preceding the start of classes, then you are already enrolled in our WebAssign course. If you added the course after this time, or if you have switched sections, then contact Jeff Taylor at math-help@colorado.edu so he can enroll you in WebAssign or switch your WebAssign access to the correct section. Include your first and last name, your CU email address, your IdentiKey username, and the course and section number you are enrolled in.

The first assignment is due Wednesday of the first week of class, so do not wait to get access to WebAssign!

WebAssign assignments will be due throughout the week. There will be a WebAssign assignment for each topic we cover. **Please check the due dates regularly**, as you are responsible for getting the assignments done on time. You will have 6 attempts for each individual question. We will allow you to miss 10% of the total WebAssign points for the semester with no penalty, so you don't need to panic if you miss a problem here and there. If you have concerns about completing a WebAssign by the deadline, discuss your concerns with your instructor.

You may email your instructor to ask about a WebAssign problem, but when you do, make sure to include "MATH 2300" in the subject line, give a clear statement of the problem you are trying to solve, say what you have already tried and why you think it should have worked. Ask your instructor for their particular policy regarding emailing questions.

Thursday Projects:
Thursdays are recitation days which are supervised by a graduate Teaching Assistant (TA) and an undergraduate Learning Assistant (LA). In recitation you will work on projects with your classmates. Expect to be assigned to groups. These groups will be changed frequently. The TA and LA will be present during recitations to facilitate your work on the projects, but the goal is for you (and your groupmates) to **work through and complete these projects on your own** as much as possible. Your TA and LA will be making sure that you participate in your group's explorations and discoveries. Your grade is partially based on participation, so *participate*. Missed projects cannot be made up: if you miss a Thursday recitation, you will receive a zero for that project. However, your lowest three recitation grades will be dropped.

Written Homework:
You will be assigned several conceptual problems each week. These problems are posted in a PDF on Canvas. You are expected to write up complete, legible, and logical solutions to these problems, which will be graded by your TA. Your solutions should be written using complete sentences to explain your steps. Your work should be scanned as a single PDF file and submitted via Canvas by 11:59pm on the due date (Thursdays).

Your lowest two homework scores will be dropped. If you have concerns about completing a written homework by the deadline, discuss your concerns with your TA.

Homework Honor Code Policy:
Although collaboration and discussion on homework is encouraged in this class, submitting someone else's work as your own is considered a violation of the Honor Code. When you write up your homework solutions, you should do so independently and in your own words.

Copying homework solutions from the internet, such as from Chegg or other similar websites, is also considered an Honor Code violation.

If you are found to be in violation of the Honor Code on homework, the first infraction will result in a grade of zero on that homework. The second infraction will result in a full letter grade deduction on your semester grade (e.g., from a B+ to a C+). The third infraction will result in an F for the course. All infractions will be reported to the Honor Code Board.

Note: Students are not allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT or Dall-E 2) on any assignment for this course. Each student is expected to complete each assignment without assistance from AI. Use of AI will be treated as a form of academic dishonesty akin to plagiarism or cheating.

Weekly Work:
Each week you will receive a weekly work grade of 0 to 10 points based on your performance in your MTWF class. Your instructor will give you details about how this score is determined for your section. This grade may be based on your performance on occasional quizzes (possibly at least one quiz every week) and possibly on your in-class participation and your attendance (which may be taken everyday or only randomly). Your lowest two weekly work grades will be dropped.

Exams:
There will be 3 in-person midterm exams given in the evening outside of class for 1.5 hours, and a 2.5-hour comprehensive final exam given in person during the final exam period. Absolute no computing/graphing technology will be allowed on exams, nor will they be needed. **Use of any outside resources at any time during the exams will be considered cheating.** See the Exam Honor Code Policy below.

If you must miss a midterm unexpectedly due to illness, quarantine, family emergencies, schedule conflicts, etc., then your final exam will replace one missed exam grade.

Midterm 1: Monday, February 10 from 5:45-7:15pm (room TBD)

Midterm 2: Monday, March 10 from 5:45-7:15pm (room TBD)

Midterm 3: Monday, April 14 from 5:45-7:15pm (room TBD)

Final Exam: Tuesday, May 6 from 10:30am-1:00pm (room TBD), comprehensive

Exam Honor Code Policy: If you are found to be in violation of the Honor Code on exams, the first infraction will result in a full letter grade deduction on your semester grade (e.g., from a B+ to a C+) or an F for the course (depending on the severity of the infraction). The second infraction will result in an F for the course. All infractions will be reported to the Honor Code Board.

Grades: The grade distribution will be calculated based on the following weightings:

- Midterms (45%)
- Final Exam (20%)
- WebAssign (10%)
- Written homework (10%)
- Recitation projects (5%)
- Weekly work (10%)

Note 1: While the allotted dropped or replaced grades in this course can be used for low grades or missed grades, the intended purpose of any drops or replacements is to alleviate the stress on your semester grade due to unpredictable or unavoidable non-academic circumstances. Do your best work so that you can reserve your drops for non-academic circumstances. However, if prolonged illness, family emergencies, or crisis situations cause you to miss a substantial number of classes or assignments, please contact the instructor and the course coordinator as soon as possible.

If your personal circumstances prevent you from completing a substantial number of assignments by the deadlines, then you are encouraged to contact Student Support & Case Management. A case manager can verify your circumstances and contact your instructor on your behalf.

Note 2: To compensate for students having occasional bad days, the weighting of the midterms will be distributed as follows: 12% for your lowest midterm score, 15% for your second lowest midterm, and 18% for your highest midterm. These weights will only be assigned after all three midterms have been given. Until that time, each midterm will weigh 15%.

Note 3: If your final exam score is higher than your lowest midterm score, then your final exam score will replace your lowest midterm score. This replacement accommodation can only be applied to exactly one midterm, and it can be used for a low midterm grade or a missed midterm (but not both).

Note 4: If you miss exactly one midterm, your missed midterm score will be replaced by your final exam score and will weigh 12%. This replacement accommodation can only be applied to exactly one midterm. If you miss the final exam for any reason, you must petition for an incomplete. There is no guarantee that a petition for an incomplete will be approved.

Note 5: In the highly unlikely event that the university cancels the final exam, the weighting will be 65% for the three midterms combined, and the weighting for the other coursework will remain 35% as stated above. In the unlikely event that a midterm is cancelled, the weighting will be 45% for the two remaining midterms combined.

University Policies and Standards

HONOR CODE

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: StudentConduct@colorado.edu. Students found responsible for violating the Honor Code will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit Honor Code for more information on the academic integrity policy.

ACCOMMODATION FOR DISABILITIES, TEMPORARY MEDICAL CONDITIONS, AND MEDICAL ISOLATION

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition, see Temporary Medical Conditions on the Disability Services website.

If you have a temporary illness, injury or required medical isolation for which you require adjustment, you should alert your instructor. Disability services can also provide guidance; see Temporary Medical Conditions on the Disability Services website.

ACCOMMODATION FOR RELIGIOUS OBLIGATIONS

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please communicate the need for a religious accommodation in a timely manner. In this class, please contact your instructor and the course coordinator prior to the relevant assignment deadlines or exams if your religious obligations interfere with the course requirements so that we can determine a reasonable accommodation.

See the campus policy regarding religious observances for full details.

PREFERRED STUDENT NAMES AND PRONOUNS

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

CLASSROOM BEHAVIOR

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

For more information, see the classroom behavior policy, the Student Code of Conduct, and the Office of Institutional Equity and Compliance.

SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT AND/OR RELATED RETALIATION

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits protected-class discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email CUreport@colorado.edu. Information about university policies, reporting options, and support resources including confidential services can be found on the OIEC website.

Please know that faculty and graduate instructors must inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the Don't Ignore It page.

MENTAL HEALTH AND WELLNESS

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact Counseling and Psychiatric Services (CAPS) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through Academic Live Care. The Academic Live Care site also provides information about additional wellness services on campus that are available to students.

ACCEPTABLE USE OF AI IN THIS CLASS

Please note that doing academic work requires that submit work that is your own. Solutions generated by AI is not considered your own original work. It doesn't matter which AI program/software you use. Using any of these to write your solutions is considered a form of plagiarism. Similarly, copying homework solutions from the internet, such as from Chegg, or other similar websites, also constitutes plagiarism. Posting questions to Chegg is also an Honor Code violation.